



Performance of Subprime Mortgage-backed Securities Before and During the Subprime Crisis

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ABSTRACT

As investors, policy makers and researchers searched through the wreckage of the subprime crisis, all were surprised by the size, complexity, risks of the Mortgage-backed Securities (MBS) market and the lack of understanding on subprime MBS. Since subprime mortgages are most often securitized as home equity Asset-backed Securities (HE ABS), a study of the performance on subprime MBS should directly examine the performance of HE ABS. Using ten years of monthly data from January 1999 to December 2008, this paper systematically examines the comparative performance between agency residential MBS and HE ABS and their performance drivers before and during the subprime crisis. Empirical evidence shows that the HE ABS market demonstrated similar return and risk characteristics as those of agency MBS during the pre-crisis period from 1999 to 2006, but much lower return and higher risk during the crisis period from 2007 to 2008. Further analysis on the drivers of excess returns on agency MBS and HE ABS illustrates the importance of the change in mortgage rates for agency MBS through the entire sample period, and for HE ABS during the pre-crisis period. It also reveals that the lag one-month change in the credit risk premium and change in the mortgage charge-off rate are significantly negative performance drivers for HE ABS during the crisis period, but not the pre-crisis period. These results suggest that the U.S. financial market underestimated the credit risk inherent in subprime MBS before the subprime crisis.

Keywords: Mortgage-backed Securities (MBS); Home Equity Asset-backed Securities (HE ABS); Subprime Crisis; Performance;

JEL: G11, G21
